5

10

## WHAT IS CLAIMED IS:

A biocide composition comprising 3-isothiazolone of the following General Formula 1 and polyhexamethyleneguanidine phosphate of the following General Formula 2:

[General Formula 1]

[General Formula 2]

$$-\frac{1}{2}(CH_2)_6-NH-C-NH-\frac{1}{2}_m\cdot nH_3PO_4$$

where R is hydrogen or chlorine in the above General Formula 1, m is an integer from 4 to 7 and n is an integer from 1 to 14 in the above General Formula 2.

- 2. A biocide composition in accordance with claim 1 wherein, the mixing ratio of the above 3-isothiazolone and polyhexamethyleneguanidine phosphate is a weight ratio of 1:1 to 1:65.
- 3. A biocide composition in accordance with claim 1 wherein, the above 3-isothiazolone is a mixture in which 3-isothiazolone having R of hydrogen and 3-isothiazolone having R of chlorine are mixed in a weight ratio of 1:20 to 20:1 and the mixing ratio of the above 3-isothiazolone and polyhexamethyleneguanidine phosphate is from 1:1 to 1:4.
- 4. A biocide composition in accordance with claim 1 characterized in that before the use of the above biocide composition, it is mixed with a media selected from the group consisting of cooling water of an industrial process, disinfectant, paint, antiseptic for latex, additives for cosmetics, additives for emulsion products, slime control chemicals for textile weaving, paper slime



ash >



13

control agent, antiseptic for leather goods, and antiseptic for metal processing oil.

5. A sterilizing method of killing or restraining the growth of bacteria, fungi and/or algae by putting a biocide composition of claim 1 into the area that is contaminated by bacteria, fungi and/or algae.

5

10